

WINDS OF EUROPE.

By PLINY EARLE CHASE.

(Read before the American Philosophical Society, June 16, 1871.)

In my desire to give proper weight to considerations which favor the hypothesis of normal cyclonic currents, I stated in a recent communication to the Society (March 17, 1871), as one of the admitted facts, "that most of the European winds are cyclonic."

Further study has satisfied me that this admission is altogether too liberal, and that, although a majority of the European winds are cyclonic, the majority is not a large one. The daily weather maps of the French "Bulletin International," and the Quarterly Weather Reports of the British Meteorological Office for 1869, seem to show conclusively that in France and Great Britain, anticyclonic are nearly as frequent as cyclonic currents, and that it is only by a discussion of continuous records that the prevailing cyclonism, such as is indicated in the following table, can be demonstrated.

I have deduced the average direction of the winds from the tables in Coffin's "Winds of the Northern Hemisphere." Those marked (C) were computed by Prof. Coffin; the others were obtained by combining, with some regard to weight, the observations which he records for the respective districts.

MEAN DIRECTION OF EUROPEAN WINDS.

Ireland, (2 stations)	N. 86°50' W.
England (C)	S. 66 "
Scotland, (C)	" 62 "
Sweden, (C)	" 50 "
Norway, (1 station)	" 86 59 "
Denmark, (C)	" 62 "
Denmark, Norway and Sweden	" 62 56 "
Russia	" 52 21 "
" and Hungary, (C)	N. 87 "
Prussia	S. 73 36 "
Germany, (C)	" 76 "
" Southern, (C)	" 82 4 "
Austria	" 64 49 "
Holland and Belgium	" 79 13 "
France and Netherlands, (C)	" 88 "
France, (C)	" 82 50 "
Switzerland	N. 56 54 "
Italy	" 26 43 "

On the NORMAL POSITION OF THE TIDAL ELLIPSOID.

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The inferences of Laplace, that for certain depths, and of Airy, that for all depths, on a globe covered with a sea of uniform depth and without